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MELANORAPHIA MACULATA N. G. N. SP.,
A NEW FOSSIL POLYCHAETE OF THE
SINEMURIAN OF OSTENO IN LOMBARDY

Abstract. — *Melanoraphia maculata*, a new genus and new species of errant polychaete is described. Eleven specimens, complete with soft parts were found in the Sinemurian deposit of Osteno in Lombardy.

Riassunto. — *Melanoraphia maculata* n. g. n. sp., un nuovo polichete fossile del Sinemuriano di Osteno in Lombardia.

Viene descritto il nuovo genere e nuova specie di polichete errante *Melanoraphia maculata*, di cui sono stati ritrovati 11 esemplari, completi di corpo molle, nel giacimento sinemuriano di Osteno in Lombardia.

For a number of years the Department of Palaeontology of the Museo Civico di Storia Naturale di Milano has been excavating the Osteno deposit (¹), without doubt a fossiliferous locality of great interest: it contains organisms which, thanks to the particular conditions of fossilization, in many cases show traces of their soft parts — something that happens very rarely in the fossil record. From among the fossils of Osteno we describe here some soft-bodied organisms in which, along with the more resistant calcareous and chitinous structures, the general shape of the body has been preserved as a dark impression on the grey

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(¹) The Osteno deposit is situated on the east bank of Lugano Lake, in the province of Como. The fossil bearing strata of the outcrop, which are attributed to the Lower Sinemurian, « *bucklandi* zone », on the basis of the presence of *Coroniceras bisulcatum* (PINNA 1967), contain the remains of numerous organisms, including plants, fishes, cephalopods, echinoderms, « worms » *s.l.*, and numerous species of crustaceans. Part of this material has been published in a series of notes (PINNA 1967, 1968, 1969, 1972; ARDUINI, PINNA & TERUZZI 1980, 1981).

rock. The specimens consist of eleven errant polychaete annelids, in which the aciculae, jaws and entire body outline have been preserved along with traces of the original colour, traces of the muscles and of the stomach.

Fully preserved errant polychaetes are not common. The best known deposit containing polychaetes fossilized with their soft parts are the following: the Middle Cambrian Burgess Shales, the Upper Jurassic Solnhofen Limestone, the Mississippian deposits of Montana (SCHRAM 1979) and finally the Pennsylvanian deposits of Illinois (THOMPSON & JOHNSON 1977, THOMPSON 1979), very remarkable for the number of taxa and specimens. As far as the Mesozoic is concerned, polychaetes have been recorded from the above-mentioned Solnhofen deposits, from the Upper Buntsandstein in the Vosges Mountains (GALL & GRAUVOGEL 1967) and from the Cenomanian of Lebanon (ROGER 1946).

Polychaetes preserved with their soft parts have so far only been recorded in Italy from the Eocene deposit of Mount Bolca. These Eocene specimens, belonging to the genera *Sthenelaites* ROVERETO, 1904 and *Eunicites* EHLERS, 1868, were described by MASSALONGO (*sub Nereites*) as early as 1855: they seem to be the first wholly preserved errant polychaete to have been recognized as such. Previously the same species had been classified as algae: by BROGNIART in 1828 and by MASSALONGO himself in 1850. As for the general presence of errant polychaetes in Italian sedimentary beds, scolecodonts have been recorded from the flysch of the Upper Cretaceous in the Northern Apennines (CORRADINI & SERPAGLI 1968) and from the Permo-Carboniferous of north-western Sicily (CORRADINI & OLIVIERI 1974; CORRADINI, RUSSO & SERPAGLI 1974). Isolated elements of the jaw apparatus of errant polychaetes also occur in several levels of the Osteno deposit.

The 11 specimens of polychaetes complete with soft parts have all been assigned to the same species.

Order *Eunicida* DALES, 1962

Fam. *Lumbrineridae* MALMGREN, 1867

Gen. *Melanoraphia* nov.

Derivatio nominis: from the greek μέλας = black and ράψις = needle.

Type species: *Melanoraphia maculata* n. sp.

Description: coinciding with that of the type species.

Melanoraphia maculata n. sp.

Derivatio nominis: from the latin *maculatus* = spotted.

Holotype: N° i 1366, Collection of the Museo Civico di Storia Naturale di Milano.

Place of discovery: Osteno (Como).

Geological age: Lower Sinemurian, « *bucklandi* zone ».

Description.

Body elongated, vermiform, segmented with a maximum of about 120 metameres in the largest specimen (N° i 1369: length *ca* 150 mm, maximum width *ca* 7 mm). Protostomium with a jaw apparatus supplied with a pair of robust mandibles: on the holotype these are *ca* 2,5 mm

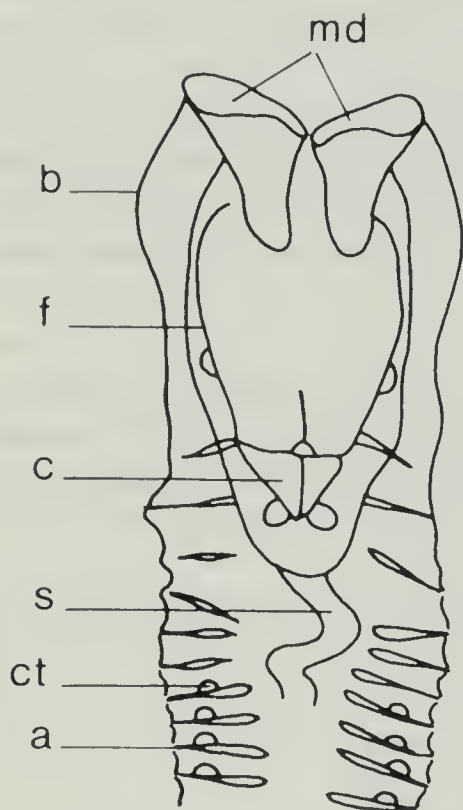


Fig. 1. — *Melanoraphia maculata* n. g. n. sp. Holotype, reconstruction of the front part. N° cat. i 1366 (x. 4,4 c.).

a = aciculae, b = body profile, c = carriers, ct = colour traces, f = forceps, md = mandibles, s = stomach.

TAVOLA XLVI

Fig. 1. — *Melanoraphia maculata*. Holotype. N° cat. i 1366 (x 2,3 ca).

Fig. 2. — *Melanoraphia maculata*. Holotype, same specimen, front part. N° cat. i 1366 (x 4,5 ca).
(Photographs by L. Spezia)

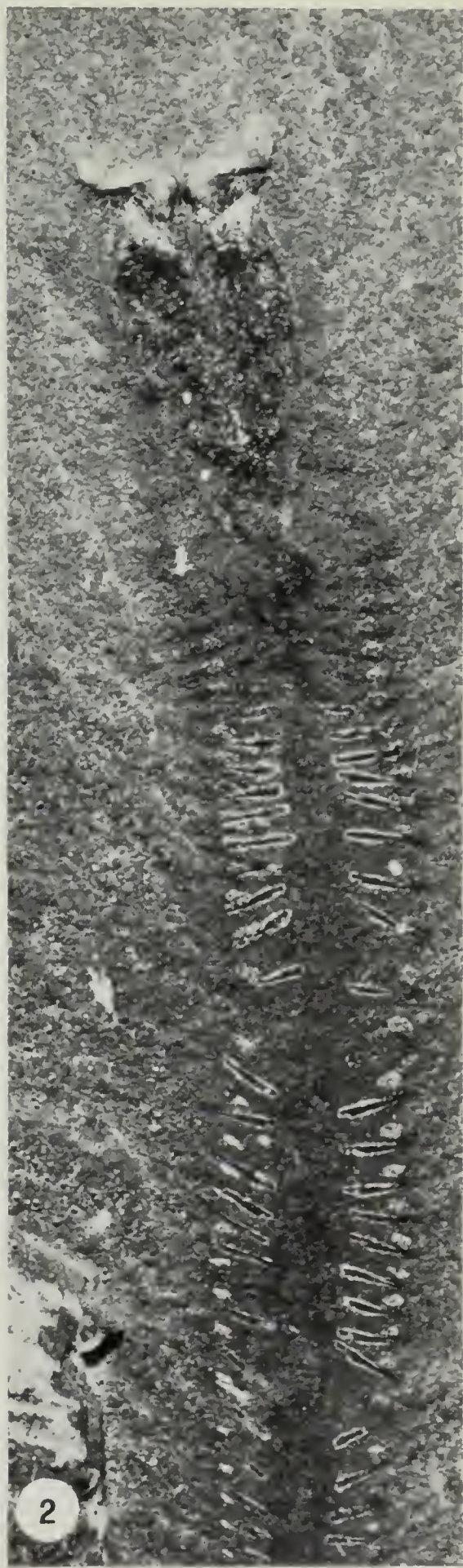
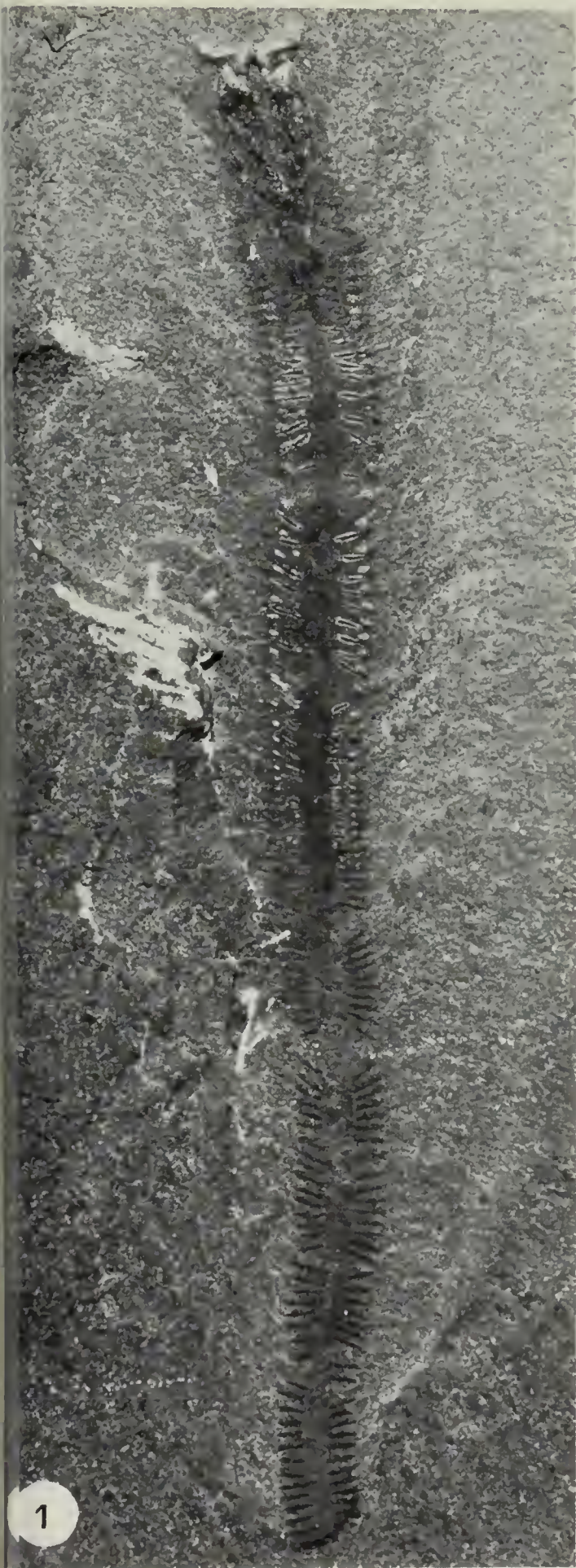


TAVOLA XLVII

Fig. 1. — *Melanoraphia maculata*. Nearly complete specimen. N° cat. i 1367 (x 4 ca).

Fig. 2. — *Melanoraphia maculata*. Complete specimen. N° cat. i 1369 (x 2 ca).

(Photographs by L. Spezia)



TAVOLA XLVIII

Fig. 1. — *Melanoraphia maculata*. N° cat. i 1368 (x 5 ca).

Fig. 2. — *Melanoraphia maculata*. Same specimen, counterpart. N° cat. i 1368.

Fig. 3. — *Melanoraphia maculata*. N° cat. i 1375 (x 7,5 ca).

(Photographs by L. Spezia)